

OPERATIONAL EFFICIENCY AS KEY TO DESIGNING OSERIT, AN INTERVENTION SUPPORT TOOL IN CASE OF OIL POLLUTION

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Major oil pollution in the North Sea could cause serious environmental and socio-economic damages. In case of oil pollution, it is therefore crucial to decide and organize the response strategy as quickly as possible and in a way that it minimizes the damages. Since January 20th 1999, the Belgian Marine Environment Protection Law imposes the choice of this response strategy to be supported by a documented and scientifically-based method. In that sense, the OSERIT project has been set up to assess the short-term environmental impacts of oil pollution at sea and to what extent the use of dispersants can help in reducing these impacts. By means of information on oil spill, OSERIT will be able to quickly deliver a 3D forecast of the drift and fate of oil spill, a list of possible oil-sensitive environmental targets that could be damaged by the pollution, the risk of beaching, and a first/rough estimate of the environmental and socio-economic impacts.

This whole project revolves around the needs of the end-users (i.e. the Agencies involved in the Belgian Operational Intervention Plan for Pollution Response). The first major axis of the project consists in developing a user-friendly web-based interface that gathers relevant pieces of information to quickly perform a net environmental benefit analysis (NEBA). The second major axis includes designing and developing a new 3D Lagrangian/Eulerian model that can simulate the drift and fate of oil at the sea surface and in the water column. The end-users will be able to make a 'baseline' simulation of the oil pollution evolution (assuming no particular response action will be undertaken) and compare it with simulations of chemically dispersed oil.

Here, we briefly introduce the project and discuss how operational efficiency has constrained the design of the OSERIT tool.